AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q92887

[0002] Fluid dispenser heads are well known, in particular in the field of pharmacy. In

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according to the prior art.

AMENDMENTS TO THE SPECIFICATION

Please amend paragraph [0002] as follows:

order to dispense a fine spray, the head generally includes a spray profile disposed just upstream from the spray orifice. The spray profile can be formed by an external part, known as an external nozzle, fastened on the outside, as described in documents U.S. Pat. No. 3,625,437, EP-0 906 785, FR-1 355 350, and EP-0 412 524. That solution presents the major drawback of a risk of said nozzle being expelled during use. In order to mitigate that drawback, it is proposed to make the spray profile by means of an insert that is inserted into the head through the inside of said head, said insert forming the end wall of said spray profile and limiting the dead volume. The characteristics of the spray, in particular the size distribution of the droplets and the reproducibility of such characteristics, are largely dependent on the shape of said spray profile. It turns out that in most fluid dispenser devices, in particular of medicines, the performance is not very consistent because of manufacturing tolerances during molding of the head. In particular, this results in the central axis of the orifice of the insert being offset from the central axis of the spray chamber. Such offset, shown in FIG. 2, can result in the spray profile being asymmetrical, with access to one of the non-radial channels being practically blocked. As a result, the fluid does not swirl as much in the spray chamber, and the performance and characteristics of the spray are thus affected. Such offset of the axes can be substantial, and can in particular vary greatly from one head to another. This prevents consistent spray characteristics from being

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obtained. Fig. 4 also shows a vertical section view of a fluid spray head with an internal nozzle

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Please amend paragraphs [0019] and [0020] as follows:

[0019] FIG. 2 is a diagrammatic view in horizontal section through the expulsion channel

of a prior-art spray head; and

[0020] FIG. 3 is a diagrammatic view in horizontal section through the expulsion channel

of a spray head constituting an embodiment of the present invention[[.]]; and

Please add the following paragraph after paragraph no. [0020]:

FIG. 4 is a diagrammatic view in vertical section through the expulsion channel of a

prior-art spray head.

Please amend paragraph [0022] as follows:

[0022] In the invention, the fluid spray head includes an expulsion channel 5 that is

provided with a spray orifice 1 and with a spray profile 10 that is disposed upstream from said

spray orifice 1. The spray profile 10 is formed in the end wall of the spray head, and, in known

manner, comprises preferably non-radial spray channels 11 leading into a central spray chamber

12 disposed directly upstream from said spray orifice 1. The channels can be three in number, as

shown in FIG. 1, but some other configuration can be envisaged. An insert 20, that is preferably

solid and of simple shape similar to a rod, is provided in said expulsion channel 5 so as to limit

the dead volume and form a cover (i.e., base surface) for said spray profile 10. The insert 20 is

inserted through the inside of the head and thus forms an internal nozzle which, in contrast to an

external nozzle fastened on the outside of the head, does not risk being expelled during actuation.

Thus, the fluid flowing along the expulsion channel 5 and around said insert via the access 15

reaches the non-radial channels 11 in front of the front face of said insert. The fluid then swirls

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into the spray chamber 12 before being expelled through the spray orifice 1 in the form of spray.

The device of the invention is thus formed of only two parts, an external part forming the head, and an internal part forming the insert.